



THE
ALAN T. WATERMAN
AWARD

NOMINATION AND REFERENCE DEADLINE: October 31, 1998

NATIONAL SCIENCE FOUNDATION

Congress established the Alan T. Waterman Award in August 1975 to mark the 25th anniversary of the National Science Foundation and to honor its first Director. The annual award recognizes an outstanding young researcher in any field of science or engineering supported by the National Science Foundation. In addition to a medal, the awardee receives a grant of \$500,000 over a three year period for scientific research or advanced study in the mathematical, physical, medical, biological, engineering, social, or other sciences at an institution of the recipient's choice.

In 1951, when President Truman was searching for someone with impeccable credentials to be the first director of the newly established National Science Foundation (NSF), the country was fortunate that a person of Alan T. Waterman's towering reputation was available. Dr. Waterman's far-seeing, statesman-like efforts on behalf of science had earned him the high esteem of the scientific community, and his appointment was widely praised not only in this country but in foreign nations as well. During his long tenure as NSF Director, he worked tirelessly in the cause of basic research and education in the sciences. His leadership was finely balanced between a sympathetic understanding of the purposes and needs of the scientific community and the responsibilities of the Federal government. His efforts were critical to the successful launching and firm early establishment of NSF, the subsequent strengthening of scientific and engineering research, and the improvement of science education.

Born on June 4, 1892, at Cornwall-on-the Hudson, New York, Alan T. Waterman completed his undergraduate and graduate work at Princeton University, where he received a Ph.D. in physics in 1916. He then became an instructor of physics at the University of Cincinnati. During World War I, Dr. Waterman spent two years in the military service with the Science and Research Division of the Army Signal Corps. At the end of the war, he joined the faculty at Yale University.

His many years at Yale instilled in him the standards of excellence in research and education that he held firmly throughout his long and distinguished career.

From 1941 to 1945, Dr. Waterman was associated with the Office of Scientific Research and Development, created by an Executive Order of the President. From 1946 to 1951 he served as Deputy Chief and Chief Scientist at the newly established Office of Naval Research.

On April 6, 1951, Dr. Waterman was appointed by President Truman for a six-year term as NSF Director. He was reappointed to the post in 1957 by President Eisenhower. Although he reached compulsory retirement age prior to the expiration of his second term, he continued to serve in this post until June 1963 at the request of President Kennedy.

Dr. Waterman was honored several times for distinguished service to his country. In December 1963 President Johnson awarded him the nation's highest civilian award, the Presidential Medal of Freedom.

Dr. Waterman's dedicated career of public service ended with his death in 1967.

THE ALAN T. WATERMAN AWARD COMMITTEE
NATIONAL SCIENCE FOUNDATION
4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230

June 17, 1998

Dear Colleague:

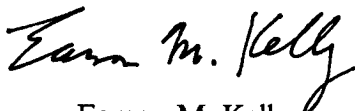
The Alan T. Waterman Award Committee invites you to nominate candidates for the 24th Waterman Award, which will be presented in May 1999. This Award is presented annually by the National Science Foundation and National Science Board to an outstanding young researcher in any field of science or engineering funded by the National Science Foundation. The 1999 Award consists of a citation, a bronze medal, and a nonrestrictive grant of \$500,000 over a 3-year period for scientific research or advanced study in the biological, mathematical, medical, engineering, physical, social or other sciences at the institution of the recipient's choice.

Candidates must be U.S. citizens or permanent residents and must be 35 years of age or younger or not more than 5 years beyond receipt of the Ph.D. degree by December 31 of the year in which they are nominated. Candidates should have completed sufficient scientific or engineering research to have demonstrated, through personal accomplishments, outstanding capability and exceptional promise for significant future achievement. In addition, candidates should exhibit originality, innovation, and significant impact on the field.

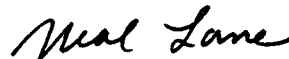
The regulations, procedures, and background of the Award are on the following pages of this brochure. Questions concerning the procedures or requests for additional information or nomination forms should be directed to the Committee's Executive Secretary, Mrs. Susan Fannoney, at the above address or by telephone (703-306-1096). In order for candidates to be considered for the 1999 Award, nominations and references must be postmarked by October 31, 1998.

The Alan T. Waterman Award Committee appreciates your participation in this prestigious Award program.

Sincerely,



Eamon M. Kelly
Member, Ex Officio, and
Chairman
National Science Board



Neal Lane
Member, Ex Officio, and
Director
National Science Foundation

REGULATIONS AND PROCEDURES

1 Selection Criteria

The Award seeks to identify the most outstanding young scientist or engineer in the country.

- (a) Candidates must be U.S. citizens or permanent residents and must be 35 years old or younger, **or** not more than five years beyond receipt of the Ph.D. degree by December 31 of the year in which they are nominated.
- (b) Candidates should have demonstrated exceptional individual achievements in scientific or engineering research of sufficient quality to place them at the forefront of their peers. Criteria include originality, innovation, and significant impact on the field.

2 Nomination Procedures and Deadline for Submission of Nomination

- (a) The enclosed form must be used for all nominations and renominations, with a separate nomination form for each candidate (photocopies of the form can be used).
- (b) The nomination form must be typewritten using a font no smaller than 12 characters per inch.
- (c) Renominations may be submitted via an updated nomination form or by letter to the Committee's Executive Secretary requesting renomination of the candidate using the existing nomination and references.
- (d) Candidates identified for final review by the selection Committee, and who remain eligible under criteria above, will be automatically considered in the next year's review cycle.
- (e) All nominations and renominations must be in conformance with the eligibility requirements stated above.
- (f) Nominations and renominations **must be postmarked by October 31, 1998** and returned to the address shown on the nomination form.
- (g) The selection Committee recommends the most outstanding candidate(s) to the Director, National Science Foundation and to the National Science Board, which makes the final determination.
- (h) Nominations and references may be faxed in order to meet the deadline date. However, the original signed document must be received by the Executive Secretary in order for the document to be reviewed by the Committee.

3 Reference Forms

- (a) Editions of the reference form dated prior to 7/97 may not be used because of changes to the form.
- (b) The names of four references not from the nominee's home institution are required for each nomination. **References must be requested by the nominator.** All nominations will be considered regardless of receipt of references.
- (c) Completed reference forms must be postmarked by October 31, 1998 and returned to the address shown on form.

Previous Awardees

1998 Christopher C. Cummins Massachusetts Institute of Technology	1987 Lawrence H. Summers Harvard University
1997 Eric Cornell University of Colorado, Boulder and National Institute of Standards and Technology	1986 Edward Witten Princeton University
1996 Robert M. Waymouth Stanford University	1985 Jacqueline K. Barton Columbia University
1995 Matthew P.A. Fisher Institute for Theoretical Physics	1984 Harvey M. Friedman Ohio State University
1994 Gang Tian Courant Institute of Mathematical Science	1983 Corey S. Goodman Stanford University
1993 Deborah L. Penry University of California, Berkeley	1982 Richard Axel Columbia University
1992 Shrinivas R. Kulkarni California Institute of Technology	1981 W. Clark Still Columbia University
1991 Herbert Edelsbrunner University of Illinois, Urbana-Champaign	1980 Roy F. Schwitters Harvard University
1990 Mark E. Davis Virginia Polytechnic Institute ~ State University	1979 William P. Thurston Princeton University
1989 Richard H. Scheller Stanford University	1978 Richard A. Muller University of California, Berkeley
1988 Peter G. Schultz University of California, Berkeley	1977 J. William Schopf University of California, Los Angeles
	1976 Charles L. Fefferman Princeton University

Alan T. Waterman Award Committee

Bruce Alberts*, President, National Academy of Sciences

John Brauman, Professor, Department of Chemistry, Stanford University

Sandra Faber, Professor and Astronomer, Lick Observatory,
University of California, Santa Cruz

Stephen C. Harrison, Professor and Chair, Department of Molecular &
Cell Biology, Harvard University

Richard M. Karp, Professor, Department of Computer Science and Engineering,
University of Washington

Eamon M. Kelly*, Chairman, National Science Board
National Science Foundation

Neal Lane*, Director, National Science Foundation

George M. Langford, Department of Biological Science, Dartmouth College

L. Rafael Rief, Professor of Electrical Engineering and Director, Microsystems Technology Lab,
Massachusetts Institute of Technology

Roy F. Schwitters (*Chairman*), S.W. Richardson Foundation Regental Professor of Physics,
University of Texas at Austin

Chang-Lin Tien, NEC Distinguished Professor of Engineering, Department
of Mechanical Engineering, University of California, Berkeley

Marta Tienda, Professor of Sociology and Public Affairs,
Office of Population Research, Princeton University

William Wulf *, President, National Academy of Engineering

(Three Vacancies)

Susan Fannoney
Executive Secretary

* Member *ex officio*

The National Science Foundation (NSF) is an independent Federal agency—not part of any other Federal department or agency—established in 1950 to promote and advance the progress of science and engineering, as well as education in those areas.

The Foundation is run by a presidentially appointed Director and a National Science Board of 24 scientists and engineers, top university officials, and industry leaders. Outside advisory groups from various disciplines also play a key role.

Since its establishment, NSF has occupied a unique place among Federal government agencies, with responsibility for the overall health of science across all disciplines—in contrast with other agencies that support research directed at specific missions.

NSF accomplishes its task by awarding grants and contracts to academic research institutions, private research firms, industrial laboratories, and major research facilities and centers. About 55,000 experienced researchers and educators from across the country, representing a wide variety of scientific and engineering disciplines, volunteer their time to help NSF staff assess the merits of approximately 30,000 proposals per year.

NSF operates no in-house laboratories but does support the operation of national research facilities and centers, oceanographic research ships, and Antarctic research stations. The Foundation also supports cooperative research efforts by universities and industry and U.S. participation in mutually beneficial scientific cooperative activities. The NSF does not support projects in clinical medicine, the arts and humanities, commerce, or social work.

To encourage young scientists and engineers, NSF provides graduate fellowships and other awards. Laying the groundwork even earlier, the Foundation funds teacher training and materials development in precollege science and mathematics.

Boosting the nation's scientific and technical literacy is a key goal of NSF. It does this by supporting educational activities in informal settings such as museums, television shows and continuing education programs; through projects such as National Science and Technology Week; and through the release of science news and information to the public in the print and electronic media.

Another important function of NSF is to monitor and report on human and fiscal resources for science and engineering. This includes publishing analyses and statistical studies on the supply of, and demand for, personnel and funding in the various scientific and engineering fields.

Because the National Science Foundation is charged by the Congress with strengthening the Nation's science and engineering research potential, it is fitting that NSF should recognize and honor truly outstanding research by a young scientist or engineer and encourage his or her future efforts through support for continued study and research.

The Foundation does this by means of the Alan T. Waterman Award, named for the first Director of the Foundation, a statesman of science who served as Director under three presidents. The prestige of the Award, approved by the National Science Board, bestows on recipients international recognition from their peers. Many young people are making remarkably creative and productive contributions to scientific and engineering progress.

PRIVACY ACT AND PUBLIC BURDEN STATEMENTS

The information requested on the application materials is solicited under the authority of the National Science Foundation Act of 1950, as amended. It will be used in connection with the selection of qualified applicants and may be disclosed to qualified reviewers and staff assistants as part of the review process, to government contractors as necessary to complete assigned work, and to a court or party in a court or Federal administrative proceeding if the government is a party. Notice of the agency's decision may be given to nominators, and disclosure may be made of awardees' names, home institutions, and fields of study for public information purposes. See Systems of Records, NSF-12, "Fellowships and Other Awards," 63 Federal Register 265 (January 5, 1998). Submission of the information is voluntary; however, failure to provide full and complete information may reduce the possibility of receiving an award.

The public reporting burden for this collection of information is estimated to average 10 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to:

Mary Lou Higgs
Reports Clearance Officer (Acting)
Information Dissemination Branch, DAS
National Science Foundation
Arlington, VA 22230

Requests for publications should be addressed to:

NSF Publication Clearinghouse
P.O. Box 218
Jessup, MD 20794-0218
Phone: 301-947-2722
Fax: None
Email: pubs@nsf.gov